

## REMARKS

Claims 1, 3-8, 12-16, 18, 20 and 25 are now pending in the application. Claims 2, 9-11, 17, 19, and 23-24 have been previously cancelled, and claims 21 and 22 have been cancelled herein. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## INTERVIEW SUMMARY

The undersigned wishes to express his appreciation to the Examiner for the courtesy of the telephone interview on November 23, 2010. The claim amendments were discussed relative to the cited references, but no definite agreement was reached.

## CLAIM OBJECTIONS

Claims 18 and 25 are objected to because of informalities. Very minor amendments have been made to these claims in accordance with the Examiner's recommendations. Accordingly, reconsideration and withdrawal of this objection is respectfully requested.

## REJECTION UNDER 35 U.S.C. § 103

Claims 1, 12, 18 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sklar et al. (U.S. Pat. No. 5,990,928) (hereinafter "Sklar") in view of Chobotov (Orbital Mechanics) (hereinafter "Chobotov") and Miller et al. (U.S. Pat. No. 5,956,644) (hereinafter "Miller"). This rejection is respectfully traversed.

Initially it will be noted that the independent claims 1, 12 and 18 have been amended to even more positively point out the ability of the system and method to monitor and determine at least one fade area (claim 1) or a plurality of fade areas (claim 18), and to make comparisons while the mobile platform is travelling through a satellite coverage region to not only detect the approach of the mobile platform to a perimeter of the coverage region, but also to detect when the mobile platform is entering a fade area.

For the Examiner's convenience claim 1 is presented below in full:

1. (Currently Amended) *A method for determining when a moving, airborne mobile platform will enter or exit at least one satellite coverage region, said method comprising:*

*determining a plurality of boundary coordinates that define a satellite coverage region perimeter, the boundary coordinates taking into consideration latitude, longitude and altitude to define a three dimensional spatial volume defined by the satellite coverage region;*

*monitoring a position of the mobile platform and an altitude of the mobile platform as the mobile platform moves along a travel path; and*

*determining the proximity of the mobile platform to the satellite coverage region perimeter, taking into account a current latitude, longitude and altitude of the mobile platform;*

*identifying fade areas within the satellite coverage region by utilizing signal strength data of a signal from a satellite associated with the satellite coverage region, and by comparing positional information of the mobile platform, in real time, to predetermined mapped and stored signal strength data to identify both a perimeter of the satellite coverage region and at least one area within the perimeter that forms a fade area; and*

*determining the proximity of the mobile platform to the fade area and to the perimeter of the satellite coverage region areas.*

As explained above somewhat similar amendments have been made to claims 12 and 18.

It is respectfully submitted that the above combination of references does not render the independent claims obvious. Sklar has been discussed at length in a previous response, but it bears repeating that neither Sklar nor Chobotov disclose or suggest detecting the approach of a mobile platform to fade areas within a given coverage region as a mobile platform moves through the coverage region. Sklar also does not disclose or suggest considering altitude information for the mobile platform. Chobotov likewise does not deal with determining *both a perimeter region and one or more fade areas within the region*. Even taking the disclosure of Chobotov in a light most favorable to the Examiner's position, at most Chobotov can be viewed as disclosing only how to determine the diameter of a satellite coverage region at sea level by a satellite orbiting above the Earth. There is no discussion of how one would determine a fade area (or areas) within the satellite coverage region.

Miller generally discusses determining when a handoff needs to be made between a mobile communication unit (MCU) based on signal strengths, but likewise does not disclose or suggest anything about monitoring for fade areas within a satellite coverage region, as well as the boundary of the coverage region itself. In summary, it is respectfully asserted that none of the cited references even peripherally suggests how one might accomplish monitoring to detect the fade areas within a satellite coverage region and to alert a mobile platform when it is about to enter a fade area.

The undersigned would also ask the Examiner to consider that, for example with Sklar, it would have been highly desirable to be able to detect for fade areas since such areas would definitely have negatively impacted the delivery of programming to customers travelling on the aircraft. And yet Sklar makes no suggestion as to doing

this, let alone how one might accomplish detecting the fade areas as well as the perimeter of a coverage region. If including this feature was so obvious, then presumably Sklar would have at least suggested the possibility of including this feature, as it would have been highly beneficial to determining when programming being delivered to passengers would be disrupted. That Sklar neither says nor suggests anything about this feature should be strong evidence that it would not have been obvious to combine this feature into a system such as that taught by Sklar. For at least these reasons, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1, 12 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sklar in view of Chobotov, Satapathy (U.S. Pat. No. 7,072,641) and Cotanis (U.S. Pat. Pub. No. 2002/0042268). In view of the remarks presented above, it is believed that this rejection has been rendered moot. Nevertheless, the undersigned wishes to comment that Satapathy similarly does not disclose or suggest both determining fade areas as well as a perimeter of a coverage region. Satabathy is limited to simply looking at signal strength of an RF signal being communicated between received by a mobile system (MS) and comparing it to a "warning level" threshold to determine if the RF signal is close to falling below the threshold warning level. Cotanis involves a system for processing signal strength information and position information to determine signal coverage. But Cotanis says nothing about mapping and storing fade areas within a coverage region, and periodically checking the location information of a mobile platform to determine if the mobile platform is approaching either a fade area or a perimeter of a coverage area.

Claims 3, 5-8, 15, 16, 21 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sklar in view of Chobotov and Miller or Satapathy and Cotanis. Claims 4, 13 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sklar as modified by Chobotov and Miller or Satapathy and Cotanis as applied to claims 1, 12 and 18 above, and further in view of Ashton et al. (U.S. Pat. No. 6,434,682). In view of the claim amendments to independent claims 1, 12 and 18, it is believed that this rejection has been rendered moot.

#### CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Nov. 24, 2010

By:   
Mark D. Elchuk, Reg. No. 33,686

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600  
MDE/al/chs  
15780643.1